



DEVELOPMENT AND EVALUATION OF A SUSTAINABLE EATING INDEX APPLICABLE IN THE PROVINCE OF QUÉBEC: RESULTS FROM THE NUTRIQUÉBEC PROJECT

Gabrielle Rochefort, Marianne Rochette, Joy Hutchinson, Catherine Laramée, Iris Giguère, Annie Lapointe, Simone Lemieux, Sophie Desroches, Véronique Provencher, Benoît Lamarche

Purpose: Sustainable dietary patterns encompass four domains, namely health and nutrition, environment, economic, and sociocultural. This study aimed to develop and evaluate a Sustainable Eating Index (SEI) that reflects the sustainability of dietary patterns among adults living in the province of Québec, Canada.

Methods: Analyses were conducted in a sample of 834 adults from the prospective web-based NutriQuébec cohort. Dietary intakes were assessed on one to three occasions within a 30-day period using a validated web-based 24-hour recall. The SEI was developed using four sub-scores, each corresponding to one dimension of diet sustainability: diet quality according to the HEFI-2019 score (nutrition), diet-related greenhouse gas emissions (environment), diet costs (economic) and the behavior of local food procurement (sociocultural). Each sub-score was attributed points on a 25-point scale based on population quantiles. The final SEI score therefore ranged from 4 to 100 points with a higher score reflecting a greater alignment to a sustainable dietary pattern. The internal consistency of the SEI was examined using a Cronbach's α and associations between the SEI score and each sub-score were assessed using Pearson correlations. General linear models were used to evaluate differences in SEI score and sub-scores among sociodemographic subgroups.

Results: The mean SEI score in this population was 52.7 points (95%CI, 51.5 to 53.9). The SEI had a standardized Cronbach's α of 0.70. The correlations between the total SEI score and each sub-score ranged from 0.43 (sociocultural sub-score) to 0.73 (environment sub-score). Females exhibited greater SEI scores than males (+4.7 points, 95%CI, 1.4 to 8.1) and individuals aged > 70 years tended to have greater SEI scores than individuals aged < 30 years (+4.4 points, 95%CI, -2.4 to 11.2). No difference in SEI scores was found across income or education subgroups, or between urban and rural residents.

Conclusions: Results support the use of the SEI to assess the sustainability of dietary patterns among adults in the province of Québec, Canada. They also provide insights about sociodemographic factors associated with sustainable eating, which may inform future policy research.